Activities in the District of Columbia

ATSDR in Partnership with the District of Columbia

The Agency for Toxic Substances and Disease Registry (ATSDR) is the lead public health agency responsible for implementing the health-related provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). ATSDR is an Atlanta-based federal agency with more than 400 employees. Congress appropriated about $78 million for ATSDR activities in 2002. ATSDR is responsible for assessing the presence and nature of health hazards at specific Superfund sites, helping to prevent or reduce further exposure and illnesses that result, and expanding the knowledge base about the health effects of exposure to hazardous substances.

ATSDR works closely with state agencies to carry out its mission of preventing exposure to contaminants at hazardous waste sites and preventing adverse health effects. ATSDR staff provides technical and administrative guidance for state-conducted site activities to identify and evaluate environmental health threats to communities. ATSDR has provided $10,000 to the District of Columbia for public health conference support.

ATSDR Site-Specific Activities

Public Health Assessment-Related Activities

One of the agency's important mandates is to conduct **public health assessments** of all National Priorities List (NPL) sites and of other sites where there might be a significant threat to the public health. In the **District of Columbia** there is currently **one** site designated to the NPL.

A **public health assessment** provides a written, comprehensive evaluation of available data and information on the release of hazardous substances into the environment in a specific geographic area. Such releases are assessed for current or future impact on public health. In conjunction with public health and environmental officials, ATSDR staff has completed **one** public health assessment in the **District of Columbia**. A summary of this public health assessment and another current activity in D.C. follows.

Washington Navy Yard – The Washington Navy Yard is an active military facility on approximately 60 acres along the Anacostia River in southeastern Washington, D.C. Over the last 200 years, the facility has supported shipbuilding, ordnance research and production, and administrative duties. Past activities have impacted groundwater underlying the property and contributed to contamination found in fish from the Anacostia River. The primary contaminants of concern are metals, polychlorinated biphenyls (PCBs), and dioxins.

ATSDR conducted site visits in February and September of 1999. Local community members expressed concern about the environmental quality of the Anacostia River in the Navy Yard vicinity, but they did not identify any specific community health concerns. ATSDR reviewed and evaluated groundwater data, surface water and sediment quality data, and on-site soil data. ATSDR concluded that groundwater, surface water, and sediment at the Washington Navy Yard do not pose public health hazards. However, past exposure to on-site surface soil at Admiral's Row is a completed exposure pathway with the potential for adverse health effects to children. ATSDR also concluded that consumption of locally caught fish could pose a public health hazard in the facility's vicinity. The Navy will continue to create and enforce land use controls, as necessary, to ensure that the public is not exposed to any contaminated areas unfit for residential use.

River Terrace Community – The River Terrace community is located near a power plant in Northeast Washington, D.C. In August 2001, the **District of Columbia Department of Health** (DCDOH) petitioned ATSDR to investigate whether the nearby power plant poses a public health risk to the community.

In November 2001, ATSDR staff conducted a driving tour of the area and met with several members of the community. ATSDR also collected air data from DCDOH which will be evaluated in either a public health assessment or health consultation report. ATSDR plans to review additional environmental data as they become available, as well as develop and maintain relationships with residents and other stakeholders. Additional activities and public health reports are likely to follow as ATSDR learns more about this community.

A **health consultation** is a written or oral response from ATSDR to a specific request for information about health risks related to a specific site, chemical release, or hazardous material. It is a more limited response than a public health assessment. To date, ATSDR has conducted **13** documented health consultations at **6** sites in the **District of Columbia.** Below is an example of a health consultation conducted in D.C. and a current site under investigation.

The Public Health Significance of Arsenic in Soil at the American University Child Development Center – The U.S. Army identified a suspected disposal area on the western boundary of the American University. Due to concerns about potential soil contamination, the U.S. Army collected soil samples from the playground of the **American University Child Development Center**. ATSDR reviewed the results of the arsenic analysis and found that it could be of concern should any children purposely swallow as much as a handful of dirt. The U.S. Army has since collected additional samples and the results indicated elevated levels of arsenic in the soil. The Center moved to another facility until the affected playground soil was removed and replaced. Additional information on this site is provided later in this fact sheet.

Chillum Site – This site is located near the town of Chillum, Maryland, on the Maryland/D.C. border. The sources of contamination are located in Maryland while the affected community is in D.C. Groundwater plumes of tetrachloroethylene (PCE) and gasoline have been detected beneath the homes in this area. The source of the gasoline plume is the Chevron station (now Sunoco) on the corner of Riggs Road and Eastern Avenue. The enforcement branch of the Resource Conservation and Recovery Act is working with Chevron to address the gasoline plume.

The source of the PCE plume is currently unknown. Area residents obtain their water from a public water source that is not dependent upon local groundwater. Therefore, soil gas is the pathway of concern. Soil gas samples have been obtained from beneath the basements of several homes in the area. Recent sampling at this site has detected PCE and benzene in soil gas. At the request of area residents, U.S. Environmental Protection Agency personnel have requested ATSDR's assistance at this site. ATSDR has agreed to attend a public meeting in September 2002 to listen to the community's concerns. ATSDR is evaluating if a health consultation is appropriate.

An **exposure investigation** is the collection and analysis of site-specific data to determine if populations have been exposed to hazardous substances. ATSDR collects this information with biologic sampling, personal monitoring, related environmental assessment, and exposure-dose reconstruction. Below is a summary of the exposure investigation and other activities related to **Spring Valley**.

Spring Valley (American University) - During World War I, the U.S. Army conducted chemical warfare research on, and in the vicinity of, **American University** in Washington, D.C. Chemical weapons were periodically detonated in the area for research and training purposes. Those materials have since degraded and are no longer found in soils; however, some arsenic contamination does remain. Chemical agents and unexploded ordnance were also buried in the area, which is now known as the **Spring Valley** section of Northwest Washington, D.C.

The contaminants of concern at this site are arsenic, mustard gas, and other chemical warfare agents. The pathways of concern are soil ingestion, dust inhalation, and vegetable gardening. Over the past 4 years, ATSDR has provided consultation on a number of concerns about hazardous substances and potential human health effects that might be associated with exposure to those substances. The U.S. Army Corps of Engineers, the group responsible for clean-up activities at this site, is conducting soil sampling.

In February 2001, ATSDR responded to findings of high levels of arsenic in a daycare playground on the campus, by performing an exposure investigation. ATSDR tested 33 children and staff at the daycare for arsenic in their hair. The results indicated that hair arsenic levels were within normal levels.

ATSDR conducted another exposure investigation in March 2002 for residents with high arsenic soil levels on their property. The results showed arsenic levels in hair and urine that are in the range of the general population and are not expected to cause any health problems. ATSDR is currently conducting a third exposure investigation of a similar population utilizing urine screening only. This exposure investigation is seeking to determine if current exposure to arsenic is occurring when residents are engaged in activities which would expose them to the soil (gardening, lawn care, and recreational use of their property). ATSDR is preparing a health consultation as part of its public health activities and is also conducting health education for this site. Other activities are under consideration.

The following is a summary of ATSDR's conclusions/recommendations about the site:

1997: ATSDR concluded that chemical and conventional ordnance may remain buried in the area; appropriate precautions and investigative measures were necessary.

2000: ATSDR found levels of arsenic were not of public health concern at four homes.
ATSDR found that the arsenic level in a composite soil sample at a daycare playground was of concern; appropriate precautions for the children were necessary, as well as additional sampling of the playground.

2001: Children and staff at the university daycare do not have elevated levels of arsenic in their hair. Adverse health effects are not expected to occur to children and staff at the daycare.

2002: Adverse health effects are not expected in residents whose properties had elevated arsenic levels in residential soils.

An ATSDR Spring Valley/American University Web page summarizing ATSDR activities at the site has been placed on line at www.atsdr.cdc.gov/sites/springvalley.

Educating Health Professionals and Community Activities

ATSDR supports educational activities for physicians and other health professionals and communities concerning human exposure to hazardous substances in the environment. Educational activities at the **Spring Valley** site have focused on local residents' concerns associated with exposure to arsenic. A site-specific Web page has been developed to provide local residents an in-depth repository of arsenic fact sheets, a summary of the exposure investigation, press releases, information associated with similar locations, and much more. Currently, a brochure titled "Safe Gardening, Safe Play, Safe Home" addressing residents' concern regarding their homes and neighborhoods is being readied for distribution.

In March 2001, D.C. physicians and healthcare professionals representing the **U.S. Department of Agriculture's Food Safety and Inspection Service**, the **Children's National Medical Center**, the Mid-Atlantic Center for Children's Health and the Environment at **George Washington University** and the **American Academy of Pediatrics** national headquarters participated in the groundbreaking session of the National Workshop to Establish an Environmental Safety Net for Children. The 2 ½ day workshop was a joint venture between ATSDR and the Committee of Environmental Health of the American Academy of Pediatrics.

The **Association of Occupational and Environmental Clinics** (AOEC), with national headquarters in D.C., is a network of 65 clinics and approximately 300 individual health professionals. AOEC plays a key role in assisting local healthcare providers and community members respond effectively to health concerns associated with hazardous waste sites and unplanned releases of hazardous materials. Through a national cooperative agreement, AOEC and ATSDR work together to conduct site-specific health promotion and medical education activities.

Through a national cooperative agreement with the AOEC, ATSDR supports the Occupational Medicine and Toxicology Consultation Clinic at the **George Washington University School of Medicine**. Areas of significant research and interest include: health effects of global environmental changes, risk assessment, biological monitoring, and acute and chronic toxicology.

The **Mid-Atlantic Center for Children's Health and the Environment** at George Washington University is one of 11 **Pediatric Environmental Health Specialty Units** (PEHSU) located across the country. Established in October 2000, the center's key focus areas are medical education and training, telephone consultation, and clinical specialty referral for children who may have been exposed to environmental hazards. The center is a project of the **George Washington University Medical Center** (GWUMC) and the **Children's National Medical Center**, and includes collaboration between the GWUMC Division of Occupational Medicine and Toxicology and the Department of Pediatrics.

Since 1995, through a cooperative agreement with ATSDR, the **National Association of County and City Health Officials** (NACCHO) has provided support to 50 local health departments to build local Superfund capacity. Prior to commencing work, an educational needs assessment is completed which serves as the basis for initiatives to integrate environmental protection, community involvement, environmental health education activities and other public health practices designed to promote improved community health. NACCHO is headquartered in D.C.

Toxicological Profiles

ATSDR develops toxicological profiles that describe health effects, environmental characteristics, and other information for substances found at NPL sites. These profiles describe pathways of human exposure and the behavior of toxic substances in environmental media such as air, soil, and water. Several of these profiles have been supplied directly by ATSDR to requesters, including representatives of federal, state, and local health and environmental departments; academic institutions; private industries; and nonprofit organizations; in the **District of Columbia**.

If you would like additional information, contact ATSDR toll-free at (888) 42ATSDR, that is, (888) 422-8737 or visit the homepage at http://www.atsdr.cdc.gov